Steve Olson

Certified Crop Advisor (CCA)

ST. CROIX COUNTY - COMMUNITY DEVELOPMENT DEPARTMENT

RESOURCE MANAGEMENT DIVISION

CONSERVATION AND LAND USE SPECIALIST

Topics

St. Croix County General Zoning Ordinance Chapter 17

St. Croix County Animal Waste Storage Facilities Ordinance Chapter 11

Nutrient Management Plans

(590 Nutrient Management Standard)

- Administration & Enforcement by St. Croix County Community Development Department (SCC-CDD)

St. Croix County Code of Ordinances Chapter 17 Zoning
AG-1 and AG-2 AGRICULTURAL DISTRICT

Livestock facilities that exceed one animal unit per acre of land suitable for animal waste utilization or livestock facilities of 500 animal units or more are allowed with a land use permit if all of the following minimum required standards are met:

- Wis. Adm. Code Ch. ATCP 151 Livestock Facility Siting (DATCP)
- Wis. Adm. Code Ch. NR 243 Animal Feeding Operations (DNR)
- Wis. Adm. Code Ch. NR 151 Runoff Management
- Ch. 11, St. Croix County Code of Ordinances, Animal Waste Storage
- Wis. Adm. Code Ch. ATCP 50 Soil and Water Resource Management Program
- NRCS Conservation Practice Code 590 Nutrient Management
- St. Croix County Floodplain Overlay District and Shoreland Overlay Districts Standards Apply (various structure setbacks apply)

St. Croix County Code of Ordinances Chapter 17 Zoning
RURAL RESIDENTIAL DISTRICT

Livestock facilities that exceed one animal unit per acre of land suitable for animal waste utilization or livestock facilities of 500 animal units or more may be allowed with a conditional use permit if all of the following minimum required standards are met:

- Wis. Adm. Code Ch. ATCP 151 Livestock Facility Siting (DATCP)
- Wis. Adm. Code Ch. NR 243 Animal Feeding Operations (DNR)
- Wis. Adm. Code Ch. NR 151 Runoff Management
- Ch. 11, St. Croix County Code of Ordinances, Animal Waste Storage
- Wis. Adm. Code Ch. ATCP 50 Soil and Water Resource Management Program
- NRCS Conservation Practice Code 590 Nutrient Management
- St. Croix County Floodplain Overlay District and Shoreland Overlay Districts Standards Apply (various structure setbacks apply)

Wisconsin Pollutant Discharge Elimination System (WPDES) permit

A Wisconsin animal feeding operation with 1,000 animal units or more is a large Concentrated Animal Feeding Operation (CAFO). The DNR may designate a smaller-scale animal feeding operation (fewer than 1,000 animal units) as a CAFO if it has pollutant discharges to navigable waters or contaminates a well.

The U.S. EPA delegates implementation of the Clean Water Act water pollutant permit and CAFO regulations to the Department of Natural Resources (DNR). The water quality protection permits ensure farms use proper planning, nutrient management, and structures and systems construction to protect Wisconsin waters. WPDES permits apply only to water protection. They do not give the DNR authority to address air, odor, traffic, lighting, land use nor any of the social concerns people may have about large farms.

St. Croix County Code of Ordinances
Ch. 11 Animal Waste Storage

Adopted in 1985, Current Form August 14, 2012

Purpose is to regulate the location, construction, and application of waste from livestock waste storage facilities in order to prevent the pollution of the county's surface and groundwater and thereby protect the public health, environment, safety and general welfare of county residents, animals and plants, and the economy.

St. Croix County Code of Ordinances Ch. 11 Animal Waste Storage Facilities

Requires Two Permits

Construction Permit reviewed & issued by SCC- CDD and DATCP.

- As-built Drawings signed by a professional engineer licensed in the State of Wisconsin certifying that the facility was installed according to standards and specifications.
- (DNR issues separate WPDES permit for construction)

Operation Permit reviewed & Issued by SCC - CDD

- The operator annually submits a certified 590 Nutrient Management Plan to the Community Development Department.
- The operator annually certifies compliance with Wisconsin Administrative Code ATCP 50 and NR 151 to the St. Croix County Community Development Department

NR 151 RUNOFF MANAGEMENT

NR 151.08 Manure Management Prohibitions

A livestock operation shall have no overflow of manure storage facilities.

A livestock operation shall have no unconfined manure pile in a water quality management area.

A livestock operation shall have no direct runoff from a feedlot or stored manure into the waters of the state.

A livestock operation may not allow unlimited access by livestock to waters of the state in a location where high concentrations of animals prevent the maintenance of adequate sod or self−sustaining vegetative cover. This prohibition does not apply to properly designed, installed and maintained livestock or farm equipment crossings.

NRCS Conservation Practice Code 590 Nutrient Management
What's in a Nutrient Management Plan?

Nutrient Management is where Food, Land, and Water Meet to reduce runoff risks and to maximize profitability

Follows USDA NRCS WI 590 Nutrient Management Standard and UWEX Pub. A2809 *Nutrient application guidelines for field, vegetable, and fruit crops in Wisconsin* to protect water and soil with nutrient application requirements

Accounts for **ALL** Nitrogen-Phosphorus-Potassium nutrient applications for the crop rotation showing adequate acreage for manure application

- Nutrients shall not run off the field during or immediately after application
- Annually update Nutrient Management plan when things change with all crops, nutrients, and tillage used

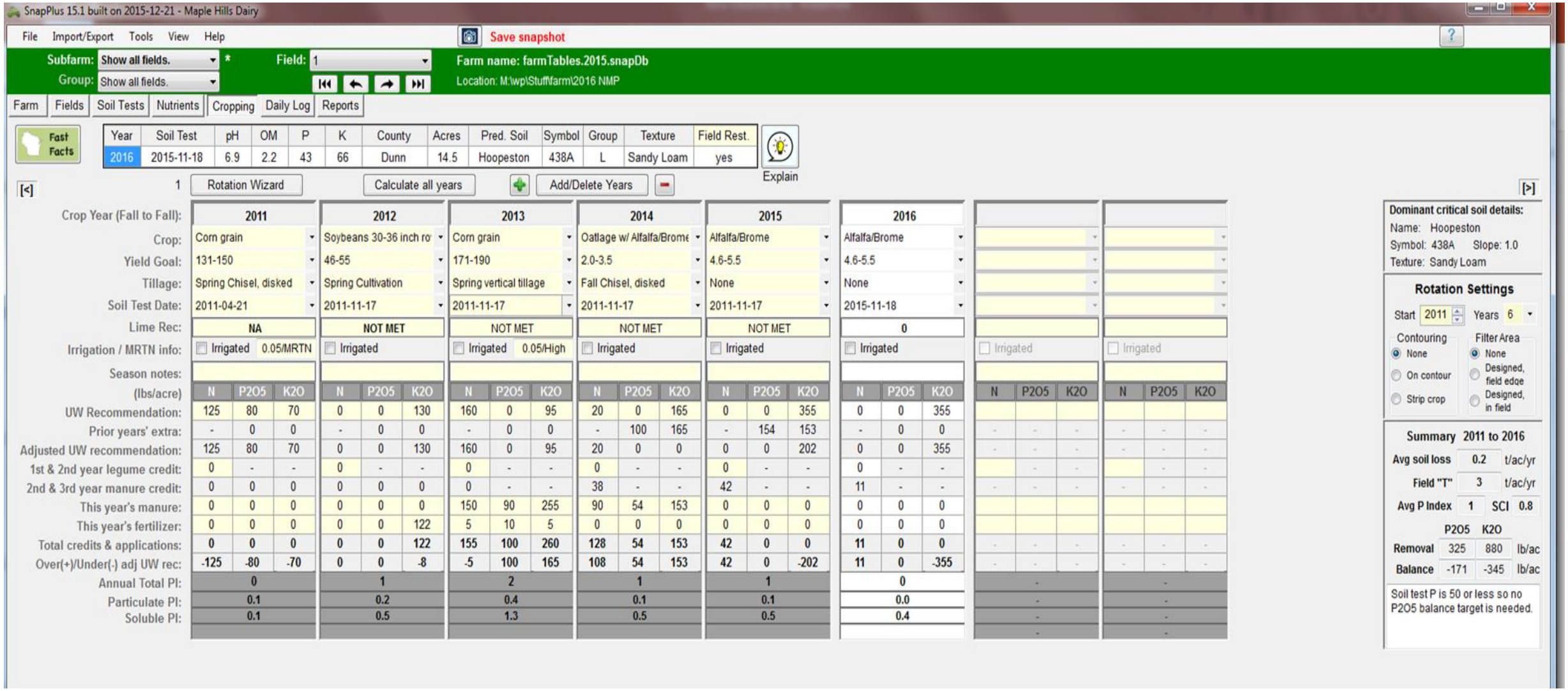
Soil test sample every 5 acres every 4 years using a DATCP certified lab

SnapPlus

Wisconsin's Nutrient Management Planning Software

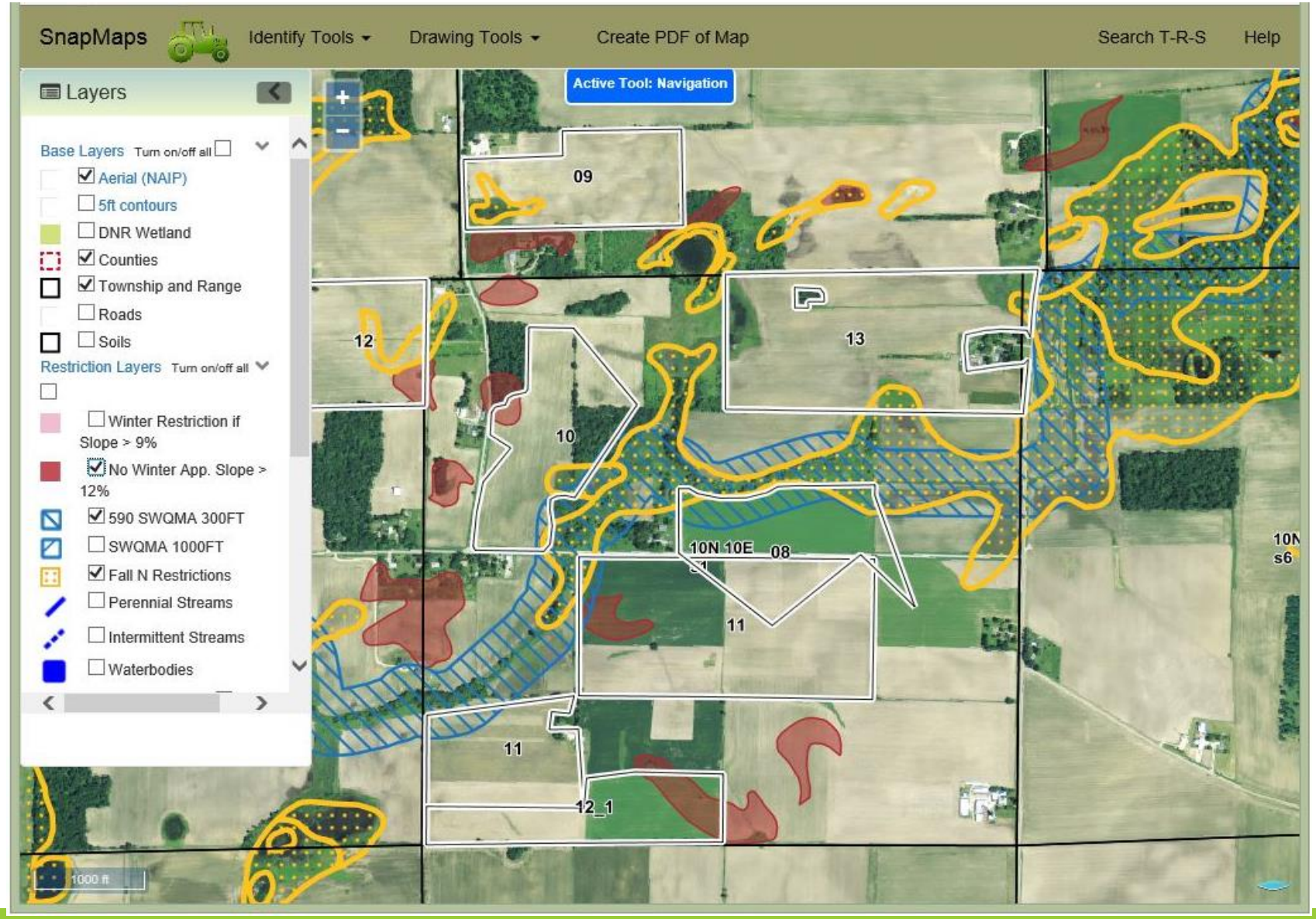
This DATCP program helps farmers make the best use of their on-farm nutrients, as well as make informed and justified commercial fertilizer purchases. By calculating potential soil and phosphorus runoff losses on a field-by-field basis while assisting in the economic planning of manure and fertilizer applications, SnapPlus provides Wisconsin farmers with a tool for protecting soil and water quality. SnapPlus is provided free to any producers to utilize.

SnapPlus Program - Cropping Screen Example



SnapPlus Program

SnapMaps showing field boundaries, waste spreading restrictions, soils, water quality management areas, well locations and setbacks, etc. Is utilized by producers to guide field application rates



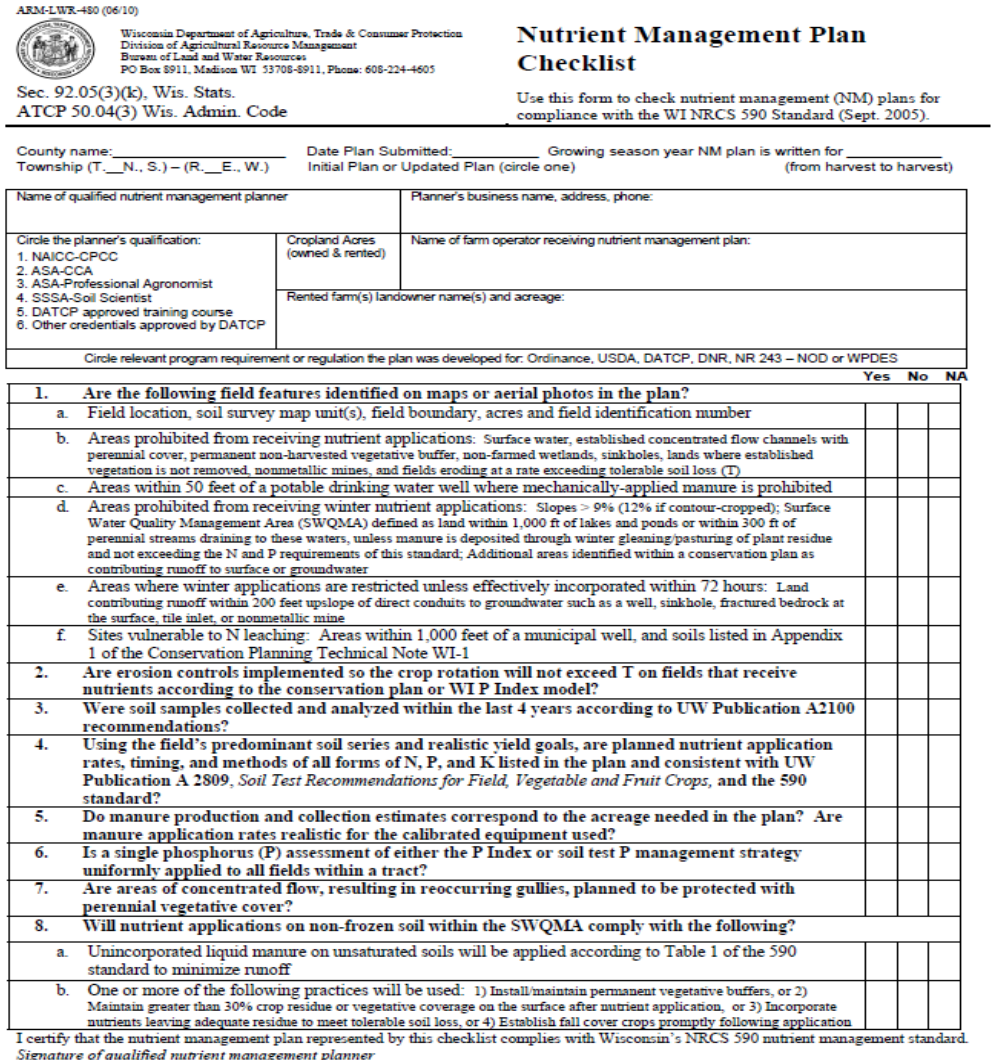
Nutrient Management Plan Checklist

Submitted annually to SCC – CDD by a qualified Nutrient Management Planner certifying that the submitted plan complies with Wisconsin's NRCS 590 nutrient management standard.

ATCP 50.04 (3) A landowner shall have and follow a nutrient Management plan when applying nutrients to any field.

- ATCP 50 Proposed Rule Revisions
- NRCS 590 –What Changed
  - Winter manure spreading requirements
  - Increased groundwater protections
  - Increased surface water protections

https://datcp.wi.gov/Pages/Programs_Services/ATCP50RuleRevision.aspx



ARM-LWR-480 (06/10)

Wisconsin Department of Agriculture, Trade & Consumer Protection
Division of Agricultural Resource Management
Bureau of Land and Water Resources
PO Box 8911, Madison WI 53708-8911, Phone: 608-224-4605

Sec. 92.05(3)(k), Wis. Stats.
ATCP 50.04(3) Wis. Admin. Code

Nutrient Management Plan Checklist

Use this form to check nutrient management (NM) plans for compliance with the WI NRCS 590 Standard (Sept. 2005).

County name:_____ Date Plan Submitted:_____ Growing season year NM plan is written for _____
Township (T.__N., S.) – (R.__E., W.) Initial Plan or Updated Plan (circle one) (from harvest to harvest)

Name of qualified nutrient management planner		Planner's business name, address, phone:
Circle the planner's qualification: 1. NAICC-CPCC 2. ASA-CCA 3. ASA-Professional Agronomist 4. SSSA-Soil Scientist 5. DATCP approved training course 6. Other credentials approved by DATCP	Cropland Acres (owned & rented)	Name of farm operator receiving nutrient management plan: Rented farm(s) landowner name(s) and acreage:
Circle relevant program requirement or regulation the plan was developed for: Ordinance, USDA, DATCP, DNR, NR 243 – NOD or WPDES		

		Yes	No	NA
1.	**Are the following field features identified on maps or aerial photos in the plan?**			
a.	Field location, soil survey map unit(s), field boundary, acres and field identification number			
b.	Areas prohibited from receiving nutrient applications: Surface water, established concentrated flow channels with perennial cover, permanent non-harvested vegetative buffer, non-farmed wetlands, sinkholes, lands where established vegetation is not removed, nonmetallic mines, and fields eroding at a rate exceeding tolerable soil loss (T)			
c.	Areas within 50 feet of a potable drinking water well where mechanically-applied manure is prohibited			
d.	Areas prohibited from receiving winter nutrient applications: Slopes > 9% (12% if contour-cropped); Surface Water Quality Management Area (SWQMA) defined as land within 1,000 ft of lakes and ponds or within 300 ft of perennial streams draining to these waters, unless manure is deposited through winter gleaning/pasturing of plant residue and not exceeding the N and P requirements of this standard; Additional areas identified within a conservation plan as contributing runoff to surface or groundwater			
e.	Areas where winter applications are restricted unless effectively incorporated within 72 hours: Land contributing runoff within 200 feet upslope of direct conduits to groundwater such as a well, sinkhole, fractured bedrock at the surface, tile inlet, or nonmetallic mine			
f.	Sites vulnerable to N leaching: Areas within 1,000 feet of a municipal well, and soils listed in Appendix 1 of the Conservation Planning Technical Note WI-1			
2.	**Are erosion controls implemented so the crop rotation will not exceed T on fields that receive nutrients according to the conservation plan or WI P Index model?**			
3.	**Were soil samples collected and analyzed within the last 4 years according to UW Publication A2100 recommendations?**			
4.	**Using the field's predominant soil series and realistic yield goals, are planned nutrient application rates, timing, and methods of all forms of N, P, and K listed in the plan and consistent with UW Publication A 2809, *Soil Test Recommendations for Field, Vegetable and Fruit Crops*, and the 590 standard?**			
5.	**Do manure production and collection estimates correspond to the acreage needed in the plan? Are manure application rates realistic for the calibrated equipment used?**			
6.	**Is a single phosphorus (P) assessment of either the P Index or soil test P management strategy uniformly applied to all fields within a tract?**			
7.	**Are areas of concentrated flow, resulting in reoccurring gullies, planned to be protected with perennial vegetative cover?**			
8.	**Will nutrient applications on non-frozen soil within the SWQMA comply with the following?**			
a.	Unincorporated liquid manure on unsaturated soils will be applied according to Table 1 of the 590 standard to minimize runoff			
b.	One or more of the following practices will be used: 1) Install/maintain permanent vegetative buffers, or 2) Maintain greater than 30% crop residue or vegetative coverage on the surface after nutrient application, or 3) Incorporate nutrients leaving adequate residue to meet tolerable soil loss, or 4) Establish fall cover crops promptly following application			

I certify that the nutrient management plan represented by this checklist complies with Wisconsin's NRCS 590 nutrient management standard.
Signature of qualified nutrient management planner